

Invitation to Review of Clean Air Regulations

# between NASA Headquarters and MSFC

For

## NASA Principal Center for Review of Clean Air Regulations

By

Salvadore V. Caruso

Marceia A. Clark-Ingram  
Chemistry Group

Materials, Processes & Manufacturing Department  
Marshall Space Flight Center, Alabama

# Background

---

- NASA HQ (Code JE and Code M) has asked MSFC to serve as principal center for review of Clean Air Act (CAA) regulations
  - Hazardous Air Pollutants (HAPs)
  - Ozone Depleting Chemicals (ODCs)
  - Volatile Organic Compounds (VOCs)
- Materials and processes utilized in the manufacture of NASA's programmatic hardware contain HAPs, VOCs and ODC.

# Team (NOET)

---

- Established at MSFC in 1992 to support /facilitate activities related to achieving environmental compliance in the manufacture of NASA program hardware
  - Design
  - Development
  - Test
  - Use
  - Production

## NOET (Cont'd)

---

- Revision of current NOET charter underway.
- Emphasis of revised charter
  - Principal Center for review of CAA regulations
  - Biennial conferences on aerospace, materials replacement technology
  - Flight performance of alternative materials and processes
  - Acquisition Pollution Prevention Team (AP<sup>2</sup>) support
  - NOET website upgrades

# Purpose of Principal Center

---

- Provide centralized support to NASA/HDQ Code JE for the management and leadership of NASA's CAA regulation review process
- Identify potential impact of proposed CAA regulations on NASA program hardware and supporting facilities
  - The EPA is required by CAA to promulgate 174 National Emission Standards for Hazardous Air Pollutants (NESHAPS)
  - Approximately 30 NESHAPS could potentially impact NASA<sup>SEC/DOE/FAA/MSFC/HDR</sup> program hardware facilities

March 3, 2010

5

# Purpose of MOA

---

- Establishes MSFC- Materials, Processes & Manufacturing Department (MP&M) as Principal Center for review and comment on EPA proposed CAA rulemaking.
- Formalizes the historical working relationship between Headquarters (Code JE & Code M), NOET and MP&M on review of CAA regulations.
- Provides funding mechanism from Code JE to support the CAA review effort.

# Corporate Knowledge at MSFC

---

- 1991 : MSFC-MP&M began reviewing ODC usage
- 1992: NOET chartered with emphasis on design, test, production and use of program hardware
- 1992-Present: Materials replacement research in MSFC-MP&M's Productivity Enhancement Complex
- 1993-1996: MSFC-MP&M & NOET teamed with HQ (Code JE & Code M), EPA, Shuttle Contractors on development of Aerospace NESHAP
- 1993 -1999: MSFC-MP&M & NOET lead the EPA/NASA Interagency Depainting Study<sup>7</sup>

## Corporate Knowledge at MSFC (cont'd)

---

- **1994, 1996, 1998:** NOET & MSFC-MP&M executed conferences on Aerospace Environmental Technology
- **1995:** NOET & MSFC-MP&M represented NASA at International United Nations Environmental Programme (UNEP) meeting on use of TCA in program hardware
- **1995-Present:** MSFC-MP&M & NOET conduct in-house materials replacement compatibility testing for Liquid Oxygen (LOX) environments
- **1996-Present:** Collaboration between NOET, MSFC/NOET/ED36 Mr. Salvadore V. Caruso March 3, 2000 MSFC-MP&M, HDQ (Code JE & Code M), Shuttle

# Shuttle Replacement Technology Team (SRT2)

---

- The SRT2 began at MSFC in 1995. It is chartered to perform following
  - Focus on obsolescence, environmental, material issues among the major space shuttle production elements
  - Share development and test data in real time thereby reducing development schedules and costs

# MSFC -MP&M & NOET

## Responsibilities

---

- Identify potential impact of proposed CAA regulations to NASA's program and supporting facilities
- Establish and maintain working relationships with the EPA
- Establish points of contact at other NASA Centers to represent programmatic interests
- Review proposed CAA regulations from EPA
- Develop requirements for data calls
- Collect and consolidate data responses from NASA team representatives
- ~~Develop draft responses to EPA and deliver to Code 10 IF~~

# MSFC-MPM & NOET Deliverables

---

- MSFC-MPM & NOET will provide the following deliverables to Code JE
  - Annual Task plans containing project objectives, deliverables & schedules for CAA regulatory support activities
  - Quarterly status review of current & planned CAA regulatory activities
  - Data calls for comments on proposed CAA regulations
  - Consolidated NASA comments resulting from responses to data calls

March 3, 2000

MSFC/NOET/ED36 Mr. Salvadore V. Caruso

# HQ Code JE Responsibilities

---

- Issue data calls to NASA Centers & supporting facilities
- Submit final comments to EPA on proposed rulings
- Review & approve Annual Task plan from Principal Center (MSFC)
- Provide funding to MSFC for contractor support
- Evaluate requirements for continuation of activities

March 2010

MSFC/NOET/ED36 Mr. Salvadore V. Caruso

# **HQ Code M Responsibilities**

---

- Provide Institutional Program Office support to MSFC for civil service staffing
- Evaluate requirements for continuation of activities

# Principal Points of Contact

---

- NASA HQ – Code JE
  - Ms. Olga Dominguez
  - Ms. Maria Bayon
- NASA HQ – Code M
  - Mr. Sam Malone
- MSFC MP&M, NOET
  - Dr. Ann Whitaker
  - Mr. Salvadore V. Caruso

# **Status of Agreement**

---

March 3, 2000

MSFC/NOET/ED36 Mr. Salvadore V. Caruso